

Dual Poly Layer and Method of Manufacture

ABSTRACT OF THE DISCLOSURE

Semiconductor devices having a dual polysilicon electrode and a method of manufacturing are provided. The semiconductor devices include a first polysilicon layer deposited on a second polysilicon layer. Each polysilicon layer may be doped individually. The method also allows for some semiconductor devices on a wafer to have a single polysilicon wafer and other devices to have a dual polysilicon layer. In one embodiment, the semiconductor devices are utilized to form a memory device wherein the storage capacitors and transistors located in the cell region are formed with a dual polysilicon layer and devices in the periphery region are formed with a single polysilicon layer.